WHAT IS CLAIMED IS:

1. An apparatus for acquiring multi-user signal synchronization in a CDMA system, comprising:

a plurality of CDMA transmitters, which generate pilot signals using different Psuedo Noise (PN) seeds and align the generated pilot signals to transmit them within a prescribed time from a synchronization point of time; and

a CDMA receiver comprising a single matched filter, to acquire a synchronization of signals transmitted from the plurality of CDMA transmitters in one frame period by varying a tap coefficient at a certain interval in the frame period.

2. The apparatus of claim 1, wherein the prescribed time of alignment of the plurality of CDMA transmitters is greater than zero, and less than the difference of a dividend of a period of one frame divided by the number of CDMA transmitters minus a time taken for loading the transmitted signals to the entire taps of the matched filter.

3. The apparatus of claim 1, wherein the matched filter comprises:

a plurality of taps to delay pilot signals transmitted from the plurality of CDMA transmitters for prescribed time periods before outputting the same;

a coefficient generator to generate coefficients corresponding to the PN seeds used in the plurality of CDMA transmitters and output the same at a prescribed interval in a frame period;

a plurality of multipliers to multiply signals outputted from the plurality of taps by corresponding coefficients outputted by the coefficient generator; and

a summer to sum the outputs of the plurality of multipliers, wherein the summed value is a correlation value.

4. A method for acquiring multi-user signal synchronization in a CDMA receiver, comprising:

receiving aligned pilot signals having different Psuedo Noise (PN) seeds from a plurality of CDMA transmitters, the aligned pilot signals having been transmitted from the plurality of CDMA transmitters in one frame period; and

acquiring synchronization of transmitted signals by dynamically updating a tap coefficient at a certain interval in the frame period and correlating it with the pilot signals.

5. The method of claim 4, further comprising:

storing each of the PN seeds of the plurality of CDMA transmitters and setting a tap coefficient updating time by dividing the length of one frame into the number of CDMA transmitters;

generating a plurality of coefficients corresponding to the plurality of stored PN seeds and loading the same at a tap coefficient updating time in a random order; and

acquiring synchronization of the transmitted signals and outputting position data in which the offset from the synchronization point of time is transferred to a corresponding demodulator, if the signal from one CDMA transmitter among signals received from the plurality of CDMA transmitters equals the loaded coefficient.

6. The method of claim 5, wherein there is no offset in the position when synchronization is acquired by using a first loaded coefficient from the synchronization point of time, and the time taken for loading the coefficient from the synchronization point of time is represented as an offset when synchronization is acquired by using coefficients other than the first loaded coefficient.

7. The method of claim 5, wherein the offset in the position is less than or equal to the length of one frame when synchronization is acquired by using the coefficient loaded at the offset from the synchronization point of time.

8. A method for acquiring multi-user signal synchronization in a CDMA system, comprising:

storing PN seeds that are equal to PN seeds used in a plurality of CDMA transmitters;

generating a tap coefficient corresponding to the plurality of stored PN seeds and updating the same at a prescribed time interval in a frame period; and

acquiring signal synchronization of the plurality of CDMA transmitters in one frame by correlating signals from the CDMA transmitters with the updated tap coefficient.

9. The method of claim 8, wherein the prescribed time interval in the frame period is represented as M/N msec, where the length of one frame is M msec and the number of CDMA transmitters in the plurality of CDMA transmitters is N.

10. The method of claim 8, wherein the generated tap coefficient is loaded in a random order at the prescribed time interval in the frame period regardless of the order of users using the corresponding PN seed.

11. The method of claim 8, wherein synchronization of signals of the corresponding CDMA transmitter is acquired and the position from the synchronization point of time is outputted when the signal from the CDMA transmitters transmitted at a certain time interval in the frame period is identical to the tap coefficient updated at the prescribed time interval in the frame period.

12. The method of claim 11, wherein there is no offset in the position when synchronization is acquired by using the first loaded coefficient from the synchronization point of time, and the time taken to load the coefficient from the synchronization point of time is represented as the offset when synchronization is acquired by using subsequent loaded coefficients.

13. The apparatus of claim 3, further comprising a plurality of demodulators to demodulate signals from the plurality of CDMA transmitters after being synchronized in the matched filter.

14. A system to synchronize multiple CDMA signals, comprising:

a delay circuit to delay pilot signals transmitted from each of a plurality of CDMA transmitters;

a coefficient generator to generate a coefficient corresponding to Pseudo Noise (PN) seeds used in the plurality of transmitters;

a plurality of multipliers to multiply signals outputted from the delay circuit by corresponding coefficients generated by the coefficient generator; and

a summer to sum the outputs of the plurality multipliers.

15. The method of claim 5, wherein the length of one frame is represented as M, the number of CDMA transmitters is represented as N, the tap coefficient updating time is M/N, and the offset is represented by n(M/N), when synchronization is acquired by using the coefficient loaded at the time point of n(M/N) from the synchronization time, and wherein $0 \leq n \leq N$.

16. The system of claim 14, wherein the delay circuit comprises a plurality of taps configured to sequentially delay each of the pilot signals by a prescribed delay time.

17. The system of claim 14, wherein the delay circuit comprises a plurality of taps configured to sequentially delay each of the pilot signals by a prescribed delay time.

18. The system of claim 14, wherein the delay circuit comprises a plurality of taps configured to sequentially delay each of the pilot signals by a prescribed delay time.

19. The method of claim 4, wherein the aligned pilot signals are transmitted within a prescribed time from a synchronization point of time.

20. The method of claim 7, wherein the offset is equal to the product of a variable multiplied by the dividend of the period of one frame divided by the number of CDMA transmitters, when synchronization is acquired by using the coefficient loaded at a time equal to the product of the variable multiplied by the dividend of the period of one frame divided by the number of CDMA transmitters from the synchronization point of time, wherein the variable is greater than or equal to 0 and less than or equal to the number of CDMA transmitters.

21. The method of claim 4, wherein the tap coefficient corresponds to the PN seeds.

22. The method of claim 8, wherein the correlating is performed by a single matched filter.

23. The system of claim 14, further comprising a plurality demodulators coupled to receive an output of the summer, wherein the delay circuit receives signals transmitted from the plurality of CDMA transmitters, and the demodulators demodulate the received signals.